What is claimed is:

1.   A method for detecting conditions in an electronic device fabrication facility, comprising:

determining each route a workpiece may follow during fabrication;

measuring fabrication data;

determining the route a particular workpiece followed during fabrication;

storing fabrication data relevant to the route a workpiece followed during fabrication in the data set of the workpiece;

analyzing the data set of the workpiece; and

examining the analysis.

2.   The method of claim 1, wherein the route a workpiece may follow is a subset of the entire manufacturing process.

3.   The method of claim 1, wherein determining includes;

identifying operations that are linked in some manner;

determining the subparts of the identified operations; and

developing a listing of all possible routes through the subparts of the operations that a workpiece may traverse during fabrication.

4.   The method of claim 3, wherein operations includes machines, chambers, processes associated with the route a workpiece may follow.

5.   The method of claim 3, wherein the manner of linking is by physical location.

6.   The method of claim 3, wherein the manner of linking is by machine type.

7.   The method of claim 3, wherein the manner of linking is by time of processing.

8. The method of claim 3, wherein the linking is by any other condition relevant to the fabrication process.

9. The method of claim 3, wherein the determining the subparts includes identifying all parts of the operation, machine, process, chamber and the like that have a substantially similar end product.

10. The method of claim 3, wherein all possible routes only includes probable routes through the subparts.

11. A method for detecting conditions in an electronic device fabrication facility, comprising:
    determining each route a workpiece may follow during fabrication;
    separately for each route, measuring fabrication data items relevant to that route;
    determining the route a particular workpiece followed during fabrication;
    storing fabrication data relevant to the route a workpiece followed during fabrication in the data set of the workpiece;
    analyzing the data set of the workpiece; and
    examining the analysis.

12. The method of claim 11, wherein the fabrication data items are measured from production data sources.

13. The method of claim 12, wherein the production data source is a test probe.

14. The method of claim 12, wherein the production data source is a parametric measuring device.

15. The method of claim 12, wherein the production data source is one in which film thickness is being measured.

16.   The method of claim 12, wherein the production data source is one in which critical dimensions are being measured.

17.   The method of claim 12, wherein the production data source includes any other data source that is relevant to the fabrication process and its condition.

18.   A method for detecting conditions in an electronic device fabrication facility, comprising:

    determining each route a workpiece may follow during fabrication;

    separately for each route, measuring fabrication data relevant to that route;

    determining the exact route a particular workpiece actually followed during fabrication;

    storing fabrication data relevant to the route a workpiece followed during fabrication in the data set of the workpiece in a data processing device;

    analyzing the data set of the workpiece; and

    examining the analysis.

19.   The method of claim 18, wherein fabrication data relevant to the route a workpiece followed during fabrication is relevant based on physical proximity to the route.

20.   The method of claim 18, wherein fabrication data relevant to the route a workpiece followed during fabrication is relevant based manufacturing result.

21.   The method of claim 18, wherein the data processing device is a computer system containing a relational database on a storage device and executed on a processor.

22.   The method of claim 18, wherein storing fabrication data in a data processing device includes:

    adding a data item from the measured route fabrication data to the data set of the workpiece; and

relating the added data item to the previously stored data items by some point of data commonality.

23.   The method of claim 22, wherein the point of data commonality is based on time.

24.   A method for detecting conditions in an electronic device fabrication facility, comprising:

    determining each route a workpiece may follow during fabrication through the fabrication faclity;

    separately for each route, measuring fabrication data relevant to that route;

    determining the exact route a particular workpiece actually followed during fabrication;

    storing fabrication data relevant to the route a workpiece followed during fabrication in the data set of the workpiece in a data processing device;

    performing an analysis on the data set of the workpiece; and

    examining the analysis.

25.   The method of claim 24, wherein the analysis is a statistical analysis.

26.   The method of claim 24, wherein the analysis is a trend analysis.

27.   The method of claim 24, wherein the analysis is a correlation study.

28.   The method of claim 24, wherein examining includes comparing the analysis of the data set of the workpiece to expected conditions.

29.   A method for responding to conditions in an electronic device fabrication facility, comprising:

    determining each route a workpiece may follow during fabrication;

    measuring fabrication data;

    determining the route a particular workpiece followed during fabrication;

storing fabrication data relevant to the route a workpiece followed during
fabrication in the data set of the workpiece;

analyzing the data set of the workpiece;

comparing the analysis to expected conditions; and

responding to the comparison.

30.   The method of claim 29, wherein the route a workpiece may follow is a subset of
the entire manufacturing process.

31.   The method of claim 29, wherein determining includes;

identifying operations that are linked in some manner;

determining the subparts of the identified operations; and

developing a listing of all possible routes through the subparts of the operations
that a workpiece may traverse during fabrication.

32.   The method of claim 31, wherein operations includes machines, chambers,
processes associated with the route a workpiece may follow.

33.   The method of claim 31, wherein the manner of linking is by physical location.

34.   The method of claim 31, wherein the manner of linking is by machine type.

35.   The method of claim 31, wherein the manner of linking is by time of processing.

36.   The method of claim 31, wherein the linking is by any other condition relevant to
the fabrication process.

37.   The method of claim 31, wherein the determining the subparts includes
identifying all parts of the operation, machine, process, chamber and the like that have a
substantially similar end product.

38.   The method of claim 31, wherein all possible routes only includes probable routes through the subparts.

39.   A method for responding to conditions in an electronic device fabrication facility, comprising:

determining each route a workpiece may follow during fabrication;

separately for each route, measuring fabrication data items relevant to that route;

determining the route a particular workpiece followed during fabrication;

storing fabrication data relevant to the route a workpiece followed during fabrication in the data set of the workpiece;

analyzing the data set of the workpiece;

comparing the analysis to expected conditions; and

responding to the comparison.

40.   The method of claim 39, wherein the fabrication data items are measured from production data sources.

41.   The method of claim 40, wherein the production data source is a test probe.

42.   The method of claim 40, wherein the production data source is a parametric measuring device.

43.   The method of claim 40, wherein the production data source is one in which film thickness is being measured.

44.   The method of claim 40, wherein the production data source is one in which critical dimensions are being measured.

45.   A method for responding to conditions in an electronic device fabrication facility, comprising:

determining each route a workpiece may follow during fabrication;

separately for each route, measuring fabrication data relevant to that route;

determining the exact route a particular workpiece actually followed during fabrication;

storing fabrication data relevant to the route a workpiece followed during fabrication in the data set of the workpiece in a data processing device;

. analyzing the data set of the workpiece;

comparing the analysis to expected conditions; and

responding to the comparison.

46. The method of claim 45, wherein fabrication data relevant to the route a workpiece followed during fabrication is relevant based on physical proximity to the route.

47. The method of claim 45, wherein fabrication data relevant to the route a workpiece followed during fabrication is relevant based manufacturing result.

48. The method of claim 45, wherein the data processing device is a computer system containing a relational database on a storage device and executed on a processor.

49. The method of claim 45, wherein storing fabrication data in a data processing device includes:

adding a data item from the measured route fabrication data to the data set of the workpiece; and

relating the added data item to the previously stored data items by some point of data commonality.

50. The method of claim 49, wherein point of data commonality is based on time.

51. A method for responding to conditions in an electronic device fabrication facility, comprising:

determining each route a workpiece may follow during fabrication;

separately for each route, measuring fabrication data relevant to that route;

determining the exact route a particular workpiece actually followed during fabrication;

storing fabrication data relevant to the route a workpiece followed during fabrication in the data set of the workpiece in a data processing device;

performing an analysis on the data set of the workpiece on a data processing device;

non-manually comparing the analysis to expected conditions; and

responding to the comparison.

52.   The method of claim 51, wherein the analysis is a statistical analysis.

53.   The method of claim 51, wherein the analysis is a trend analysis.

54.   The method of claim 51, wherein the analysis is a correlation study.

55.   The method of claim 51, wherein responding includes:

alerting a user when the comparison shows an unexpected condition.

56.   The method of claim 55, wherein the alerting is by visual cues on an output device of the data processor.

57.   The method of claim 55, wherein the alerting is by the data processor sending a message to the user of an unexpected condition.

58.   The method of claim 55, wherein the data processing device non-manually halts production when an unexpected condition occurs

59.   The method of claim 51, wherein responding includes:

not alerting a user when the comparison shows expected conditions in the fabrication facility.

60.   The method of claim 51, wherein responding includes:

non-manually continuing fabrication when the comparison shows expected conditions in the fabrication facility.